



# From curriculum evaluation to quality assurance: the process

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# Questions to be answered

- Why did Umalusi undertake this research and how does it fit into Umalusi's research agenda?
- Conceptualising the process – how did that happen?
- How was the research conceptually framed?
- Who were identified to undertake the research?
- What were the questions and intentions that informed the research ?
- How was the research done?
- How will the research findings be used?

Why did Umalusi undertake this research and how does it fit into Umalusi's research agenda?

- As Quality Council for General and Further Education and Training, Umalusi performs its functions in terms of NQF Act (Act 67 of 2008) and NEPA Act (Act 27 of 1996)
- As a result of the NQF Act, Umalusi has the function of developing and maintaining a sub-framework of qualifications
- Curriculum is intrinsic to the determination of the breadth, depth and level of the qualification which means quality assurance of the underpinning curricula is necessary

- Driven by the demands of certification and due to standardisation concerns, setting standards requires quality assurance not only to assessment but also to the quality of the curriculum
- Research to understand standards better: at first the primary focus has been the SC, later the NSC (2008), NC (V), N-courses and ABET

# Maintaining & setting standards through curriculum evaluation

- Umalusi understands that to determine a standard it needs to be done comparatively through a process of triangulation
- Comparison of curricula and the assessment prescribed provide meaningful judgements about critical issues such as the recognition and transfer between qualifications (NSC / NC (V)), or serve as self-referencing (International benchmarking)
- Curriculum research provides an opportunity for collaboration and setting new standards

Senior Certificate	Pre- and post apartheid, analysis of curricula for schools and colleges, benchmarking into Africa
↓ National Senior Certificate	Comparative analysis of SC curricula and National Curriculum Statement
	NSC / NC (V) Comparative analysis of gateway subjects in NQF L4 sister qualifications
	NSC / International counterpart curricula
	Comparative analysis National Curriculum Statement and the amended version Curriculum and Assessment Policy Statement

# Why did Umalusi undertake this research and how does it fit into Umalusi's research agenda?

December 2010, when the CAPS reworking had been completed under the guidance of the Ministerial Project Committee, Umalusi received a letter from its Chairperson requesting it to '*quality assure the newly developed Curriculum and Assessment Policy Statements for Grades R – 12*'. (Foundation Phase, Intermediate Phase, Senior Phase and FET Phase)

Timeframe proposed for dealing with almost *fifty separate curricula across the entire school spectrum*: two and a half months!

# What does it mean to quality assure curricula?

- Evaluation of curriculum dimensions
- Comparative research
- Setting criteria for determining standards and quality assuring curricula
- International benchmarking

Also requires an understanding of the full developmental trajectory of selected individual subjects across the twelve years of schooling and careful consideration of the points of transition within schooling: developed *entry requirements and expected levels of learner attainment through exit-level outcomes per phase*

## Why did Umalusi undertake this research and how does it fit into Umalusi's research agenda?

Year	Planning	Phase
2011	Planning the process of quality assuring the entire national curriculum	
2011	Comparative analysis RNCS / CAPS; piloting instrument for exit-level outcomes	Foundation Phase
2012	Comparative analysis NCS / CAPS for subjects with practical component; exam analysis; planning analysis of PATs & ISATs (NC(V)) / NC (V) programmes and unit standards / industry	FET Services Subjects
2013 (Feb – July)	Comparative analysis RNCS / CAPS; determining entry-level requirements & exit level outcomes; international benchmarking	Intermediate Phase
2013 / 2014 (Aug '13 – March '14)	Comparative analysis NCS/ CAPS gateway subjects; determining entry-level requirements and exit-level outcomes; International benchmarking	FET Phase
2014	Comparative analysis NCS/ CAPS; determining entry-level requirements and exit-level outcomes; International benchmarking	Senior Phase
2015	Longitudinal Study (in planning)	All phases

# Conceptualising the process – how did that happen?

Request / analysis on strength of needs analysis / research / ministerial

Analysis of current curriculum based on 10 curriculum dimensions: aims coverage, breadth and specification weighting, emphasis and depth pacing sequence and progression coherence pedagogic approaches assessment guidance curriculum integration curriculum format and user-friendliness

Comments on reviews and suggestions to strengthen curriculum dimensions

## Curriculum analysis

Conceptualise analysis / project plan and process Theoretically frame research Prepare project outline

Project cost calculation (developers/ time/ field expertise)

Study / investigation into background information, history of subjects

Develop stakeholder relationships; involve appropriate experts for collaboration in project

Develop / adapt instrument according to need, research questions; field of study

Develop model for project / team work (layered/ collaborative/ individual / pair)

Disseminate information and findings; share gained knowledge / plan launch & printing

Analyse the level of demand and difficulty of assessed curriculum through item-by-item investigation

Plan training sessions on application of instrument

Establish aim, analyse alignment with content, weighting and focus; pacing and progression

Establish broad overview of rational, theoretical framework, place of subject in qualification

# Conceptualising a quality assurance process

- Part 1

- Preparatory phase – understanding the phase and development of some of the curricula; features of comparative research; theoretical framing

- Part 2

- To establish the quality of the Curriculum and Assessment Policy Statement in relation to the FET Phase of the NCS of 2008

- Phase 3

- Writing entry-level requirements & exit-level outcomes; determining expected learner attainment at exit level

International benchmarking

# Thinking about the research process ...

- Constituting teams, research sessions in workshops, team work and individual reading, analysis, preparation and logistics.
- Process of contributing towards a team report (leader to submit final version of team report on due date)
- 3 instruments to be aligned with Part 1,2 and 3 of the investigation (mostly a detailed questionnaire in MSWord; to characterise exactness, conciseness and to enable succinct findings; in some cases accompanied with Excel spread sheet for data transfer and visual presentation)

# Who were identified to undertake the research?

## **School-based individuals with –**

A recognised four-year teacher qualification, six years of teaching experience with at least four years of teaching in the FET Phase and grounded subject knowledge and teaching methodology

## **NCS Provincial Coordinators/Subject Advisors with –**

A recognised four-year teacher qualification, at least 2 years of subject advising experience, experience in coordinating a specific subject

## **University/Higher Education institution based individuals with –**

Lecturing experience in at least one of the subjects and a sound knowledge of curriculum studies, subject didactics or instructional science

## **Curriculum Developers with –**

A recognised four-year teacher qualification and teaching experience, extensive knowledge of teaching methodology and knowledge of a curriculum development process.

The intention was to have teams consisting of people who bring different strengths and perspectives on the subject being investigated. Each team had a team leader to take overall responsibility for the reporting on that subject.

Evaluation teams were assembled for the following subjects:

Accounting

History

Business Studies

Mathematics

Economics

Mathematical Literacy

English Home Language

Life Sciences

English First Additional Language

Physical Sciences

Geography

# How was the comparative research conceptually framed?

# Conceptual framing

## 1. Features of the intended curricula of the top performing countries on international standardised tests:

- Clear, succinct, unambiguous, easily understood, measurable statements of learning (Donnelly, 1999, 2002, 2005)
- A foundation of essential learning as represented by subject disciplines (Donnelly, 1999, 2002, 2005) and a strong, discipline-based approach to school subjects (Schmidt et al, 2005)
- Curriculum coherence – the overall sequence or order of the curriculum from one grade to the next, and internal disciplinary principles evident in the sequencing and progression (Schmidt et al, 2005)

2. Conceptual categories that comprehensively describe the **structuring of curriculum and pedagogy**, including:

The **relationship between**

- different subjects in the curriculum
- topics within subjects (the **selection of appropriate knowledge**), subjects and the everyday world or the world of work (the **link between informal and abstract knowledge**)

The **specification of the**

- content (knowledge) or that is to be learnt
- sequencing of content /skills in the curriculum
- pacing of the curriculum

# What were the questions that informed Part 1 of the research?



What does the comparison between the Curriculum and Assessment Policy Statement (CAPS) for FET Phase (Grades 10 to 12) and the National Curriculum Statement (NCS) reveal about:

- the extent to which the NCS curricula were **repackaged or rewritten** in the formulation of the CAPS;
- the **relative depth and breadth** of the content covered in the respective curricula,
- the **overall design, structure and coherence** of the curricula,

What does the comparison between the Curriculum and Assessment Policy Statement (CAPS) for FET Phase (Grades 10 to 12) and the National Curriculum Statement (NCS) reveal about:

- the **level of specification** of various aspects of the curricula, and
- the **guidance** provided by the curricula for the **teaching and assessment** of the subject.

# How was the research done?



- Contextualising the research process in a number of ways.
- Working with: *Report of the Task Team for the Review of the Implementation of the National Curriculum Statement* (DoE, 2009),
- Providing information and documentation about the curriculum dimensions the teams would use for their analysis, and about approaches to curriculum development and reviews.
- Discussing the application of the instrument prepared for the comparative investigation
- Provide examples for the data collection in Word and transfer of data in Excel spread sheets (Visual presentation)

# Comparative research?

Identify the aims, purpose and vision of the qualification

In-depth curriculum analysis: content & skills specification, weighting and focus

Analysis of design features: organising principle, outcomes, assessment standards, teaching methodology etc.

Investigating the questions about sequencing, progression and pacing



Comparisons **are a way of learning**, and being able to identify, analyse and talk about similarities and differences

Comparisons are seldom between exactly like things, and therefore have to be planned carefully

# Curriculum dimensions and aspects evaluated

Having closely examined the two respective curricula for their subjects, the evaluation teams were asked to give their opinion regarding –

- **Broad curriculum design** – the central design principle;
- The **aims/objectives** of the subject;
- The **type of learner envisaged**;
- The **type (& role) of teacher envisaged**;
- The **weighting of each topic** in terms of the percentage of time allocated to each;
- The **emphasis** placed on content and skills;
- The **depth** of the subject in terms of the extent to which learners could move from a superficial grasp of a topic to a more refined and powerful grasp;

# Curriculum dimensions and aspects evaluated

Having closely examined the two respective curricula for their subjects, the evaluation teams were asked to give their opinion regarding –

- The **degree** to which the curriculum of each subject is **paced**, in terms of the volume of work to be covered in a specific timeframe;
- The **specification of sequencing of topics**;
- The **progression of topics** from Grades 10 to 12 in terms of increase in level of complexity and difficulty;
- The **coherence** of the curriculum for each subject, in terms of connections and coordination between topics through the levels;

# Curriculum dimensions and aspects evaluated

Having closely examined the two respective curricula for their subjects, the evaluation teams were asked to give their opinion regarding –

- The **degree** to which teachers are given explicit **guidance** regarding pedagogy;
- The **degree** to which teachers are provided with **guidance** regarding **assessment**;
- Format and user-friendliness of the curriculum documentation.

*In addition, the teams had to substantiate their opinions about the extent to which the CAPS has ‘repackaged’ or completely rewritten the curriculum in the revision process.*

# Curriculum dimensions and aspects evaluated

Having closely examined the two respective curricula for their subjects, the evaluation teams were asked to give their opinion regarding –

Lastly, the evaluation teams were required to make recommendations, based on their findings regarding all the curriculum dimensions and aspects mentioned for the strengthening of the CAPS for each subject where these may still require improvement.

The recommendations will form the basis for negotiating subsequent work to be undertaken by the Department of Basic Education and monitored by Umalusi.

# Why determine entry-level requirements and exit-level outcomes?

## Umalusi finds it important to determine expectancies and outcomes to be met because:

- Curriculum documents are not explicit in providing entry-level requirements regarding knowledge and skills expected of a learner entering a particular phase.
- Nor is it the case that exit-level outcomes are explicitly set for learners exiting a phase.
- Entry-level requirements are not only those that are developed in earlier years in the particular subject under consideration, but may have been developed in any of the subjects in preceding phases.

**What were the intentions that informed Part 2 of the research?**



# What were the intentions that informed Part 2 of the research?

The intention of this part of the evaluation is to:

- (a) determine the entry-level requirements regarding knowledge and skills (generic and subject-related) for a learner entering the FET Phase
- (b) write the exit-level outcomes for the FET Phase (generic and subject-related), based on the details provided in the CAPS documentation

FET Phase topic (CAPS)	Gr 10	Gr 11	Gr 12	Exit-level outcomes for FET (content / skills / competencies)	Kinds of thinking expected (Cognitive Category)
Motion	Y			Recall definitions of position, velocity and acceleration	Recall / recognise
			Y	Solve problems with motion	Analyse / interpret Apply complex procedures
			Y	Translate between graphs of motion	Analyse / interpret

# What were the intentions that informed Part 2 of the research?

- (c) *determine the extent of the match between the exit-level outcomes identified by the Senior Phase teams as a result of their investigation and the entry-level requirements, or skills that are assumed to be in place, for learners entering FET Phase* (Please note: this will be done at a later stage, once the Senior Phase research is completed)
- (d) make recommendations to strengthen the FET Phase.

- The evaluation teams had the opportunity to make recommendations regarding expected learner attainment in order to strengthen the FET Phase CAPS.
- The findings from this part of the investigation will inform the research that is planned for the Senior Phase.
- The intent is to determine possible gaps from the cross-mapping between the Senior Phase and FET Phase.
- The findings will also provide information for the longitudinal study across all of the phases, which is planned for 2015.

# How will the research findings be used?



- Advise the Minister on the quality of the CAPS in comparison with the NCS and international curricula
- The findings and recommendations are formulated as guidelines for improvement, in terms both of the national policy (CAPS), and of implementation and assessment
- Provide a set of constructs which would allow for reliable assessment in all the subjects evaluated. These constructs will provide profiles which will help the system to report much more accurately on learner achievement and provide a publicly available picture of what achievement in the NSC means

- The findings point to areas that need strengthening in teacher education and professional development.
- Umalusi, in collaboration with the DBE, Department of Higher Education and Training, Higher Education Institutions and Higher Education South Africa (HESA), to collaborate in improving the quality of teacher preparation (*field experts, subject methodologists and professionals who are able to reflect on their own teaching practice*).



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